



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/781,197

02/18/2004

Ray Siuta

200300281-1

1749

22879

7590

07/27/2006

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

WALSH, DANIEL I

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,197

Applicant(s)

SIUTA ET AL.

Examiner

Daniel I. Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Receipt is acknowledged of the Amendment received on 5-1-06.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al. (US 6,070,794).

Re claim 1, Niwata et al. teaches a pliable fabric, a memory attached to the fabric in which machine readable information about the secure document is stored, an interface attached to the pliable fabric and coupled to the memory that when a reader device reads the secure document, transmits at least a portion of the machine readable information stored in the memory

to the reader device, wherein the machine readable information includes data of plural transactions in which the secure document was previously used (abstract, card 2, card unit processing apparatus 1, and log of FIG. 11+). The card is interpreted to be a pliable fabric, as is conventional for transaction cards. Though silent to human readable information on the fabric, the Examiner notes that printed matter is not patentable. Additionally, the use of printed matter on a card is well known and conventional in the art to provide identification/information about the card/card user, and is an obvious expedient.

Re claim 2, the card/document is interpreted as secure currency.

Re claim 3, though silent to artwork, the Examiner notes that printed matter is not patentable (see in re Ngai and in re Gulack). Additionally, the Examiner notes that artwork/graphics on a card are well known and conventional to provide information and aesthetics to a card, and therefore is an obvious expedient.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al., as discussed above, in view of Nishimura (US 2003/0222137).

Re claim 4, the teachings of Niwata et al. have been discussed above.

Niwata et al. is silent to a barcode.

Nishimura teaches that the IC card can also have ID read from a barcode or strip on the card (paragraph [0090]).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al. with those of Nishimura.

One would have been motivated to do this to provide more versatility or conformance with available readers.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al./Nishimura, as discussed above, in view of Tomiyama (US 4,855,584).

Re claims 5-6, the teachings of Niwata et al./Nishimura have been discussed above.

Niwata et al./Nishimura are silent to the barcode comprising a watermark printed with magnetic ink.

The Examiner notes that transaction cards including IC/smart chips and magnetic strips are well known and conventional. Tomiyama teaches that a magnetic ink barcode is hidden (interpreted as watermarking) on a card (FIG. 3).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al./Nishimura with those of Tomiyama.

One would have been motivated to do this for enhanced security.

Re claim 7, though silent to laminate, cloth, paper, the Examiner notes that it would have been obvious to one having ordinary skill in the art at the time the invention was made to select such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (In re Leshin, 125 USPQ 416). Additionally, the Examiner notes that laminate cards are conventional in the art, motivated by cost effectiveness, flexibility, ease of manufacture, durability, etc.

5. Claims 8-9 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al., as discussed above, in view of Rollender et al. (US 5,971,282).

Re claims 8-9, the teachings of Niwata et al. have been discussed above.

Niwata et al. is silent to a chemical sensor to detect a chemical signature and generate information supplied to the reader.

Rollender et al. teaches that a card (smartcard) can sense and provide signals (abstract). Though silent to a reader, Rollender et al. teaches the signals are output by 16, therefore it would have been obvious to use a reader to fetch the data, as conventional in the art.

Accordingly, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al. with those of Rollender et al. in order to sense signatures to provide value information.

6. Claims 10-16, 53-55, 57, 58, and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al., as discussed above, in view of Nitou (US 2005/0116816).

Re claim 10, the teachings of Niwata et al. have been discussed above, noting the card can be a radio card (interpreted as RFID). Though silent to human readable information printing thereon, the Examiner notes that printed matter is not patentable, as discussed above, and that providing such information is an obvious expedient.

Niwata et al. is silent to the card storing authentication information indicates whether a RF reader is authorized to communicate with the card.

The Examiner notes that mutual authentication/verification between a reader and card is well known and conventional in the art.

Nitou teaches an example of mutual authentication between a card and a device meeting the claimed limitations (see claim 3 for example). Nitou is relied upon as an example showing mutual authentication, though it is for a vehicle system, it is applicable to card/reader systems.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al. with those of Nitou.

One would have been motivated to do this for enhanced security.

Re claim 11, the Examiner notes that human readable identifiers are well known and conventional in the art to provide information, and therefore are an obvious expedient.

Re claim 12, the teachings of Niwata et al. have been discussed above. The Examiner notes that the log information shows at least one of an identifier/denomination.

Re claims 13- 15, the Examiner notes that though the prior art is silent to a power extraction circuit that extracts power from the reader signal to power the security module, and that the RF interface comprises a transmit and receive circuit in order to transmit to the reader and receive and extract information encoded and sent by the reader, such limitations are well known and conventional in the art. It would have been obvious to one of ordinary skill in the art for the currency to be a passive RF device (powered by the reader) to have a practical, low cost, and unobtrusive means of RF communication with currency/documents, as is conventional in the art. Additionally, the (RF interface would need to have a transmit and receive circuit in order to be able communicate information to and from the reader, hence obviating the limitations. Re claims 14-15, the Examiner notes that separate transmit/receive circuits or integrated transmit/receive units are well known and conventional in the art to receive and send information wirelessly, and are chosen based on design constraints, system constraints (separate circuits allows one direction of transfer to be used even if the other direction breaks, unlike in an integrated send/receive circuit), cost, etc., and such a selection is within the ordinary skill in the art. Accordingly, the Examiner notes that such limitations are well within the skill in the art

in order to have a RF interface that is able to communicate bidirectional with a reader for reading/writing. Further, it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177,179.

Re claim 16, the Examiner notes that it would have been obvious to one of ordinary skill in the art that by looking at the log, one would see if a radio frequency reader had communicated with the card, but the transaction data.

Re claim 53, the limitations have been discussed above re claim 10. Though silent to human readable currency information the Examiner notes that printed matter is not patentable as discussed above. It would have been obvious to one of ordinary skill in the art to have such information to provide information to the user, for example.

Re claim 54, the limitations have been discussed above re mutual authentication/verification, as is conventional in the art.

Re claim 55, the Examiner notes that it is understood in mutual authentication that authentication occurs before access proceeds, which would include reading/writing as is known in the art for security purposes.

Re claim 57 and 60, the teachings have been discussed above re the log.

Re claim 58, the Examiner notes that the memory/log of the card is discussed above to show records, transactions, and balances. The Examiner notes that if tampering occurred, such as altering of card data, it would have been obvious that it could appear in the log data, through improper data.

Re claim 61, the limitations have been discussed above re claim 10.

Re claim 62, the Examiner notes that the Applicants specification teaches the decoder as a device that can be used to authenticate the RFID device. Though the prior art is silent to a decoder, it teaches mutual authentication, including authenticating a reader, which the Examiner interprets as functionally equivalent. Though silent to a decoder, the Examiner notes that such separation of functions from an element involves only routine skill in the art.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al./Nitou, as discussed above, in view of Ikefuji et al. (US 2005/0023361).

The teachings of Niwata et al./Nitou have been discussed above.

Niwata et al./Nitou are silent to a integrity meter to determine the connection between the fabric and security meter.

Ikefuji et al. teaches an exposed sensor that detects when an IC card is opened and performs an action (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al./Nitou with those of Ikefuji et al.

One would have been motivated to do this to protect the card from manipulation. The Examiner notes that the exposure sensor is interpreted to be a integrity meter that determines the integrity of the connection between the fabric and security module, interpreted as part of the IC card.

8. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al./Nitou, as discussed above, in view of Rogers et al. (US 6,669,100).

Re claim 56, the teachings of Niwata et al./Nitou have been discussed above.

Niwata et al./Nitou are silent to the security module detects whether tampering/compromising has occurred.

Rogers et al. teaches tamper resistant logic/circuitry as part of the card circuitry/security module that detects tampering/compromise.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al./Nitou with those of Rogers et al.

One would have been motivated to do this in order to have enhanced security features.

9. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niwata et al./Rollender, as discussed above, in view of Nitou, as discussed above.

The teachings of Niwata et al./Rollender et al. have been discussed above.

Niwata et al./Rollender et al. are silent to mutual authentication.

Nitou teaches such limitations (discussed above). Re claim 59, the limitations have been discussed above re claim 8, where the memory 24 can store the sensor information.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Niwata et al./Rollender et al. with those of Nitou in order to have more security with mutual authentication, as is conventional in the art.

Response to Arguments

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner has cited new art (see above).

In response to the Applicants argument that Ross does not teach data of plural

transactions in which the document was previously read, the examiner has cited the art to Niwata et al. to teach such limitations, interpreting the card of Niwata as a secure document.

Re the Applicants argument re claims 10-16, the Examiner has cited the art of Nitou to teach limitations of memory storing authentication information so data can be read and written to the banknote, which the examiner has interpreted as a card, as it is useable for currency/money.

Allowable Subject Matter

11. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 19-21 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach the integrity meter coupled to a current source and comprising a resistive element in parallel with the current source and a conductive loop in parallel with the current source, wherein the conductive loop comprises a plurality of hooks that attach the security module to the pliable fabric (re claim 18), and a currency comprising a fabric and a security module attached to the fabric wherein the security module comprises a memory in which information about the currency is stored and an ink reservoir in which ink is stored and wherein the security module releases ink to mark the fabric when it receives a predetermined command (re claim 19).

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

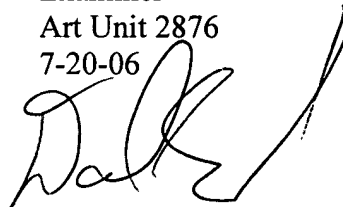
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel I. Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel I Walsh
Examiner
Art Unit 2876
7-20-06

A handwritten signature in black ink, appearing to read 'D. Walsh', is written over the printed name and date.